

Data Warehousing



Washington State Department of Health
Tobacco Prevention & Control Program
National Tobacco Control Conference
San Francisco, CA
November 2002



Presentation Purposes

- Identify needs and issues around “Data Warehousing”
- Describe the WA DOH Tobacco Program’s Data Warehousing activities
- Suggestions for several levels of warehousing



What is “Data Warehousing”?

- Making data accessible
- From a variety of sources
- To different audiences
- Over time
- In a simple, clear way



Why bother?

- “Ivory Tower” vs. “open book”
 - Gives constituents immediate access to data, to answer questions from their stakeholders
 - May give local programs credibility in the eyes of local leaders
 - May introduce data-driven decisionmaking (or at least consideration of data in planning)



Washington's Data Warehousing

- Evaluation team members
 - Mike Boysun
 - Craig Parker
 - Susan Richardson
 - Stacy Scheel
 - Shanae Williams
- If you can't generate automated reports, don't go there... (don't do a lot of hand-entry of data)
- Even with automation, it is a lot of work



Making it accessible

- What are people interested in?
 - Me, me, me
 - Only a “data person” would organize by data source
 - Organize by geographic or population groups
 - How low can you go?
 - Don’t forget about statewide summaries
- Making it accessible
 - Using the “hidden” website – both restricts access and allows it
 - Links to website through web-based reporting system
 - .pdf layouts
 - Use visual layout to make it spiffy
 - Help people get just what they want

Site Directory:

- [Home](#)
- [CATALYST Training Materials](#)
- [Standard Tools](#)
- [Mapping Website](#)
- [Alternative File Format Information](#)
- Some files on this page require free readers.
[Download a Reader](#)
- [Map of this site](#)

Library of Resources:

This is not a public site. All information on these pages is for use by Tobacco Program Staff in their local prevention programs. If you have questions regarding this website, contact Shanae Williams at (360) 236-3746.

State & Local Data

(Click on county to view local data)





A variety of sources

- Health data
 - Birth, death, cancer incidence, hospitalization
- Survey data
 - BRFSS, ATS, school-based youth surveys
- Program data
 - Quit Line calls, media summaries, compliance
- Demographic information
 - Population distributions & numbers (age, race, SES)
- Geographic information
 - Organizational boundaries

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King County Data

Data Summaries

- [County Profile 2000](#)
- [County Fact Sheet](#)

Adult Telephone Survey

- [Adult Telephone Survey 2001](#)

Youth Telephone Survey

- Regional Youth Telephone Survey 2001
 - [ESD 121](#)

School Based Youth Survey

- [Fall 2000 Participation Report](#)
 - [County Sample](#)
- [Fall 2000 Survey Bar Graphs](#)
- Fall 2000 Survey Results
 - [6th Grade](#)
 - [8th Grade](#)
 - [10th Grade](#)
 - [12th Grade](#)

Cessation Resources

- Quit Line Calls (Graph)
 - [2001, 4th Quarter](#)

- o [2002, 2nd Quarter](#)
 - o [2002, 3rd Quarter](#)
- Quit Line Data Summary (Spreadsheet)
 - o [2001, 3rd Quarter](#)
 - o [2001, 4th Quarter](#)
 - o [2002, 1st Quarter](#)
 - o [2002, 2nd Quarter](#)
 - o [2002, 3rd Quarter](#)
- County Cessation Resources

Public Awareness and Education Tracking

-

Policy Resources

- Youth Access
 - o [2001 Tobacco Retailer File](#)
 - o [Synar Compliance Check History](#)
- Smokefree Restaurants
 - o Smokefree Restaurant List
 - o Smokefree Restaurant Guide
 - o Fact Sheet
- Industry Sampling
 - o
- Model Policies
 - o Sampling ban

Demographic Summaries

- Race
- Population
- Income

Geographic Maps

- [School District Maps](#)

External Links

- [King County Web Page](#)
- [RDA County/State Profiles](#) - Link to DSHS Risk and Protection Profile for Substance Abuse Prevention for Washington State and its Counties.



A variety of audiences

- Program contractors
- DOH/state staff
- Other stakeholders (ACS, disparities workgroup members)

Implications:

Need to consider how each group uses the data, and plan accordingly

Decisions:

What does the public get? How?

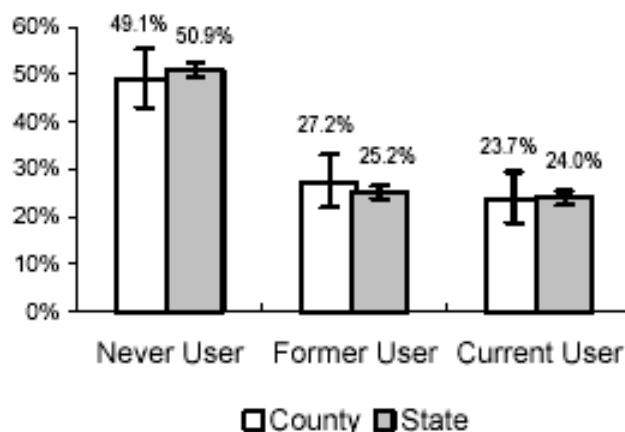
	10-13 Years Old [95% C.I.]	14-17 Years Old [95% C.I.]
Influences against tobacco use: Anti-tobacco clubs/ groups		
A lot or Some	50.4 % [44.9 , 55.8]	25.4 % [21.1 , 30.3]
Little or None	49.6 % [44.2 , 55.1]	74.6 % [69.7 , 78.9]
Influences against tobacco use: Tobacco is expensive		
A lot or Some	36.5 % [31.4 , 42.0]	24.1 % [20.1 , 28.6]
Little or None	63.5 % [58.0 , 68.6]	75.9 % [71.4 , 79.9]
Influences against tobacco use: Don't want to be addicted		
A lot or Some	84.6 % [81.3 , 87.5]	76.5 % [73.2 , 79.6]
Little or None	15.4 % [12.5 , 18.7]	23.5 % [20.4 , 26.8]
Influences against tobacco use: Setting a bad example for younger kids (Among high school aged youth)		
A lot or Some	* % [* , *]	69.9 % [66.2 , 73.3]
Little or None	* % [* , *]	30.1 % [26.7 , 33.8]
Influences against tobacco use: Friends think tobacco use is "uncool"		
A lot or Some	72.5 % [68.7 , 76.1]	50.2 % [46.3 , 54.2]
Little or None	27.5 % [23.9 , 31.3]	49.8 % [45.8 , 53.7]
Influences against tobacco use: Worried about current health		
A lot or Some	82.5 % [79.2 , 85.3]	77.6 % [74.2 , 80.7]
Little or None	17.5 % [14.7 , 20.8]	22.4 % [19.3 , 25.8]
Influences against tobacco use: Don't want to support tobacco industries		
A lot or Some	76.1 % [72.3 , 79.5]	66.1 % [62.2 , 69.7]

	ESD % [95% C.I.]	State % [95% C.I.]
"During the last school year, how many times did you receive information in classes about the health hazards and dangers of tobacco use?"		
Once or None	29.4 % [20.7 , 39.9]	27.2 % [24.1 , 30.6]
2-3 times	31.7 % [22.1 , 43.0]	27.1 % [23.7 , 30.7]
4 or more times	38.9 % [28.6 , 50.3]	45.7 % [42.0 , 49.4]
"Did this tobacco education you received during the last year make you think about whether or not you should smoke or use chewing tobacco?" (Among youth who had 1+ days of education)		
Definitely yes	80.1 % [68.4 , 88.2]	76.7 % [73.2 , 79.9]
Probably or Definitely no	19.9 % [11.8 , 31.6]	23.3 % [20.1 , 26.8]
"During the past school year, did you participate in any activities to encourage other youths to say 'No' to tobacco – for example through youth groups, health fairs, or presentations to younger children?"		
Yes	20.5 % [11.9 , 33.0]	23.3 % [19.3 , 28.0]
No	79.5 % [67.0 , 88.1]	76.7 % [72.0 , 80.7]
"Have either of your parents or guardians talked to you about tobacco use?"		
Yes	88.4 % [80.1 , 93.6]	84.6 % [82.4 , 86.6]
No	11.6 % [6.4 , 19.9]	15.4 % [13.4 , 17.6]
"Have your parents specifically told you that they do not want you to use tobacco?"		
Yes	89.1 % [44.2 , 61.7]	83.7 % [46.8 , 52.4]
No	10.9 % [38.3 , 55.8]	16.3 % [47.6 , 53.2]
"During the past 30 days, how often did you see commercials on TV about the dangers of tobacco use or about not smoking?"		

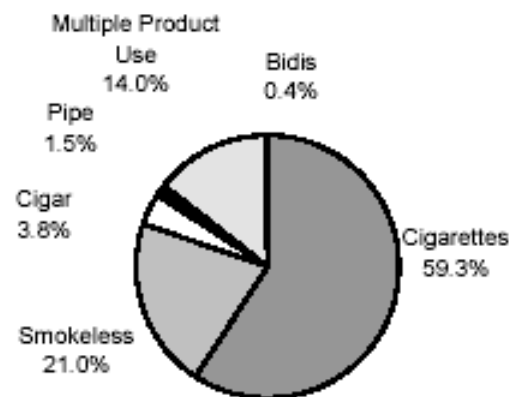
TOBACCO AND HEALTH IN WASHINGTON STATE — COUNTY PROFILES OF TOBACCO KNOWLEDGE AND BELIEFS

Adult Tobacco Use

Tobacco Use Status (All Types of Tobacco)



Types of Tobacco Use by Current Users (Statewide)



Program Objective: Prevent Initiation of Tobacco Use

Do you agree that: "There are so many things that cause cancer, tobacco use is not going to make any difference?"

	County	95% CI	State	95% CI
Strongly or somewhat agree	14.7%	(10.7-19.8)	13.9%	(12.9-15.1)
Somewhat disagree	7.4%	(4.7-11.4)	10.9%	(9.8-12.1)
Strongly disagree	78.0%	(72.2-82.8)	75.2%	(73.7-76.6)

How old were you when you started smoking? [Among adult ever-smokers]

	County	95% CI	State	95% CI
First tried using cigarettes	15.9 yrs	(15.1-16.7)	15.6 yrs	(15.4-15.8)
Started regularly smoking	18.9 yrs	(18.0-19.8)	18.3 yrs	(18.1-18.5)

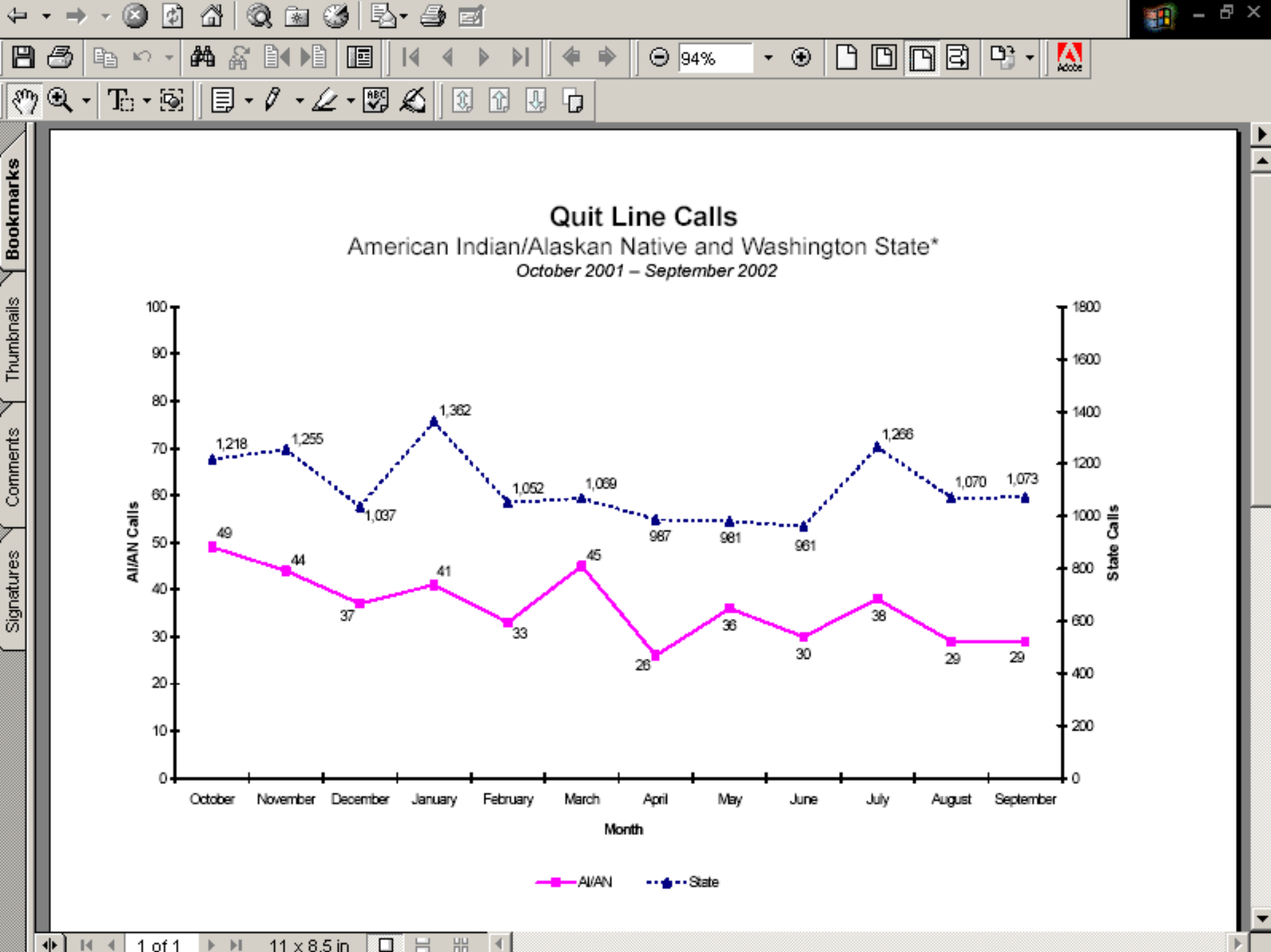
What are the rules about smoking in your home?

	County	95% CI	State	95% CI
It is not allowed at all	86.8%	(82.1-90.3)	79.2%	(77.9-80.6)
It is allowed sometimes	6.0%	(4.2-10.9)	12.2%	(11.2-13.4)



Over time

- Identify a schedule for updates
 - Monthly, quarterly
 - Annually
 - “as indicated”
- When data start to pile up...
 - Indicate “new” on the website (decide how long it stays “new”)
 - Post updates to listserv
 - Have an archival plan
 - Train users at different events about what is there

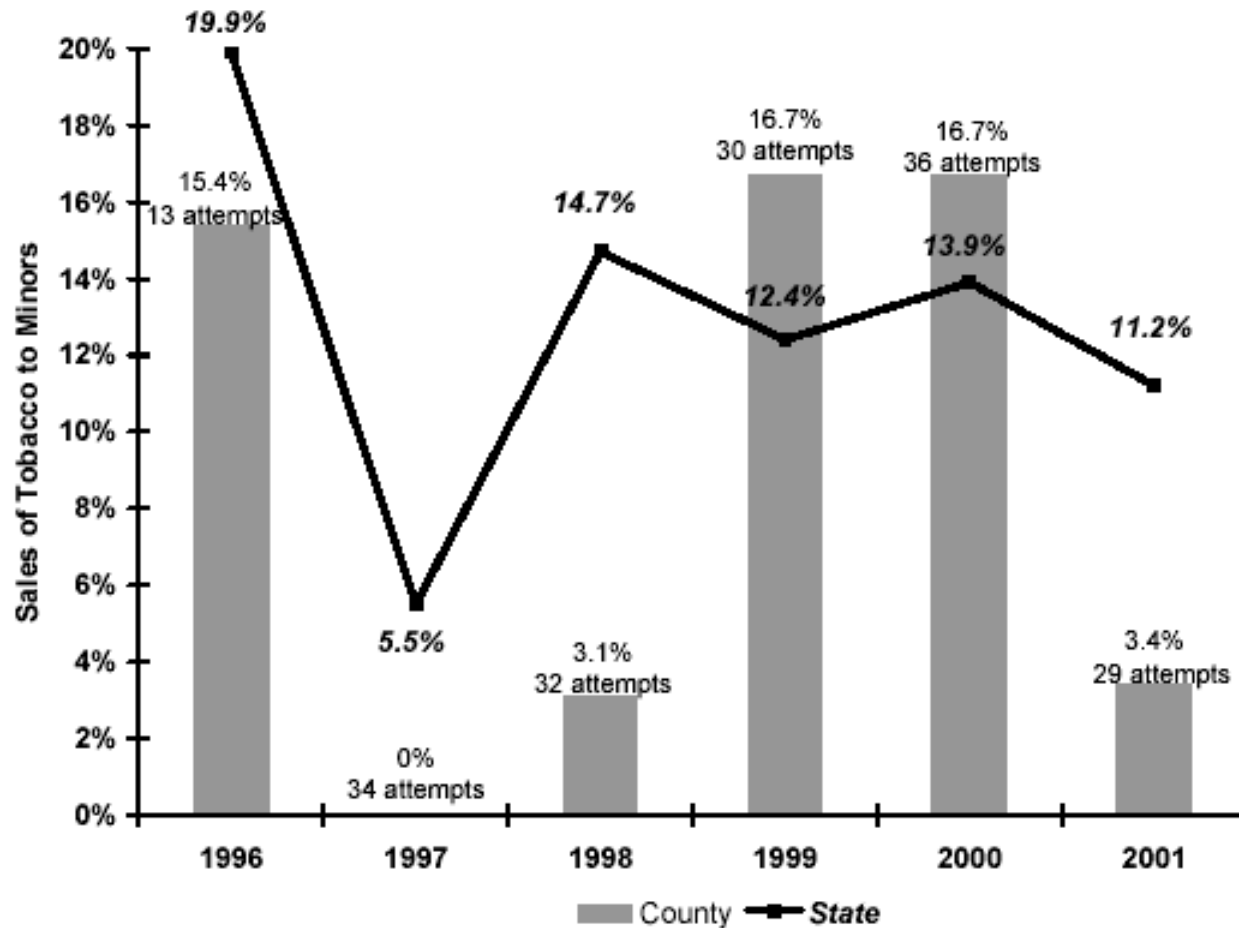


Ferry County Quit Line Data Summary July 1 - September 30, 2001

	<u>County</u>	<u>State</u>
Number of Calls to Quit Line	N = 1	N = 3,835
Percent of Statewide Calls	0.03%	100.0%
Percent of State Population in County¹	0.1%	100.0%

	<u>County %</u>	<u>State %</u>
Gender	N =	N = 3,517
Female	*	61.4%
Male	*	38.6%
Race/Ethnicity	N =	N = 2,466
People of Color	*	13.2%
White	*	86.8%
Age	N =	N = 3,096
Less than 18 years old	*	2.4%
18 - 24 years old	*	16.0%
25 - 34 years old	*	22.6%
35 - 44 years old	*	26.1%
45 years and older	*	33.0%
Education	N =	N = 2,564
Did not graduate high school	*	16.3%
High school graduate	*	32.5%
Some college/vocational school	*	37.6%
College graduate	*	13.7%
Caller Type	N =	N = 3,235
General Information	*	10.7%
Health care provider	*	2.9%

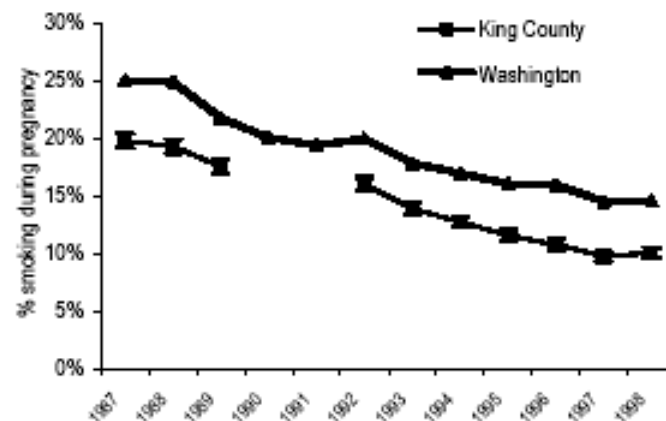
Sales of Tobacco to Minors Spokane County and Washington State



TOBACCO: OUR NUMBER ONE HEALTH PRIORITY

Estimated number of current adult and youth smokers who will die prematurely as a result of tobacco use: 89,000

Smoking During Pregnancy (1987-1998)

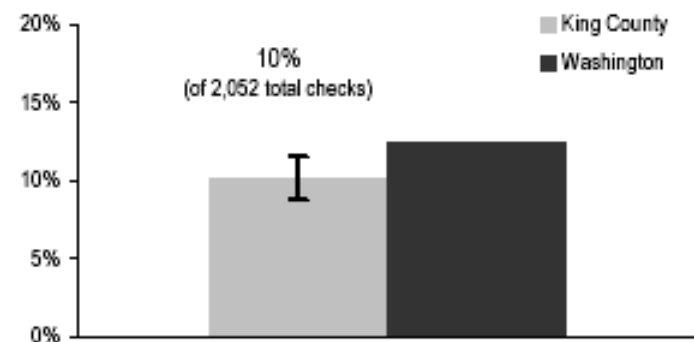


Infants born annually to mothers who smoke during pregnancy: 2,111

Data not shown for years where more than 20% of smoking information is missing.

Minors Access to Tobacco (1999 only)

Percent Sales to Minors



Number of tobacco retailers in county: 2,477

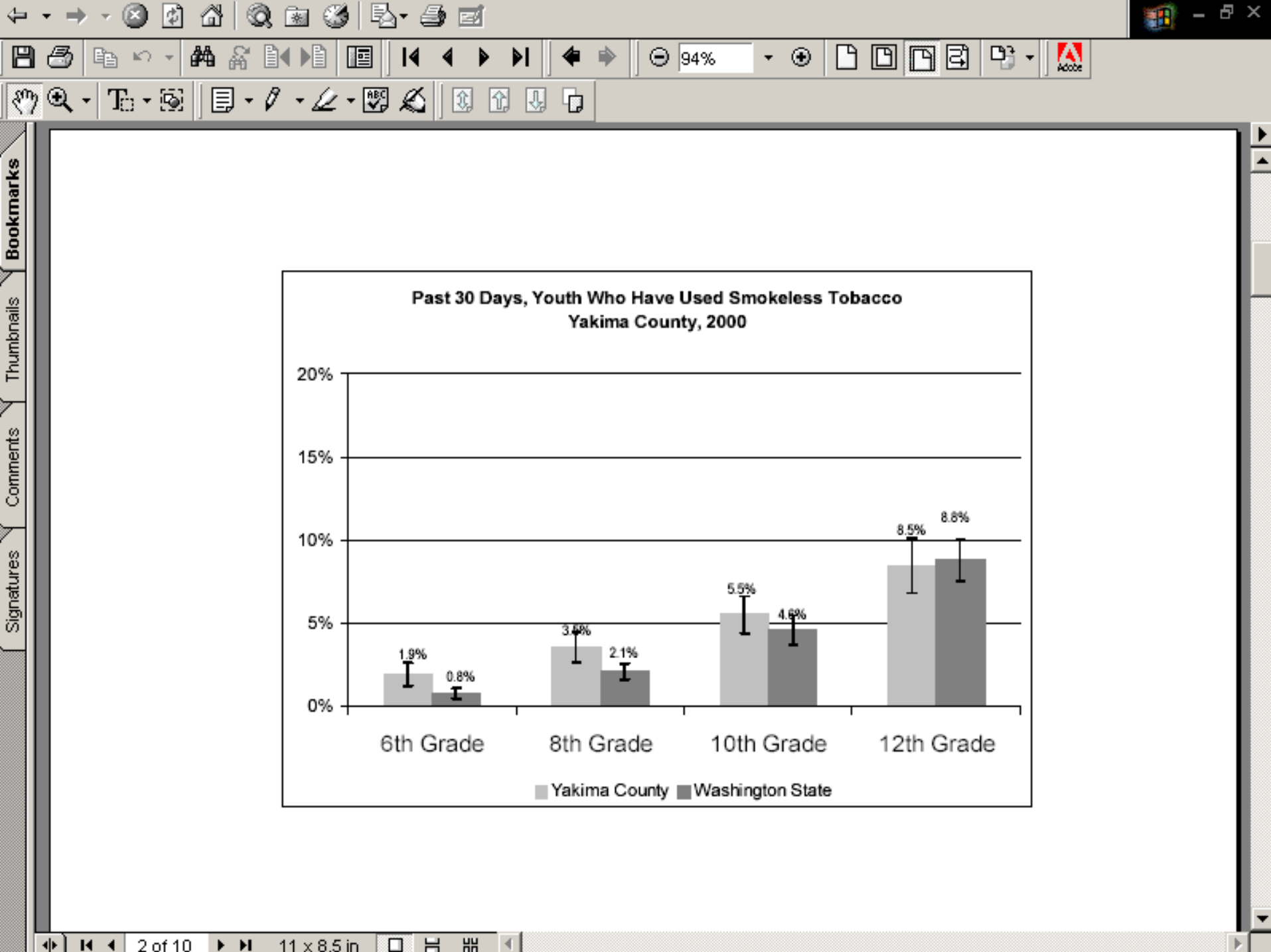
Health at Risk (Estimated numbers for county)

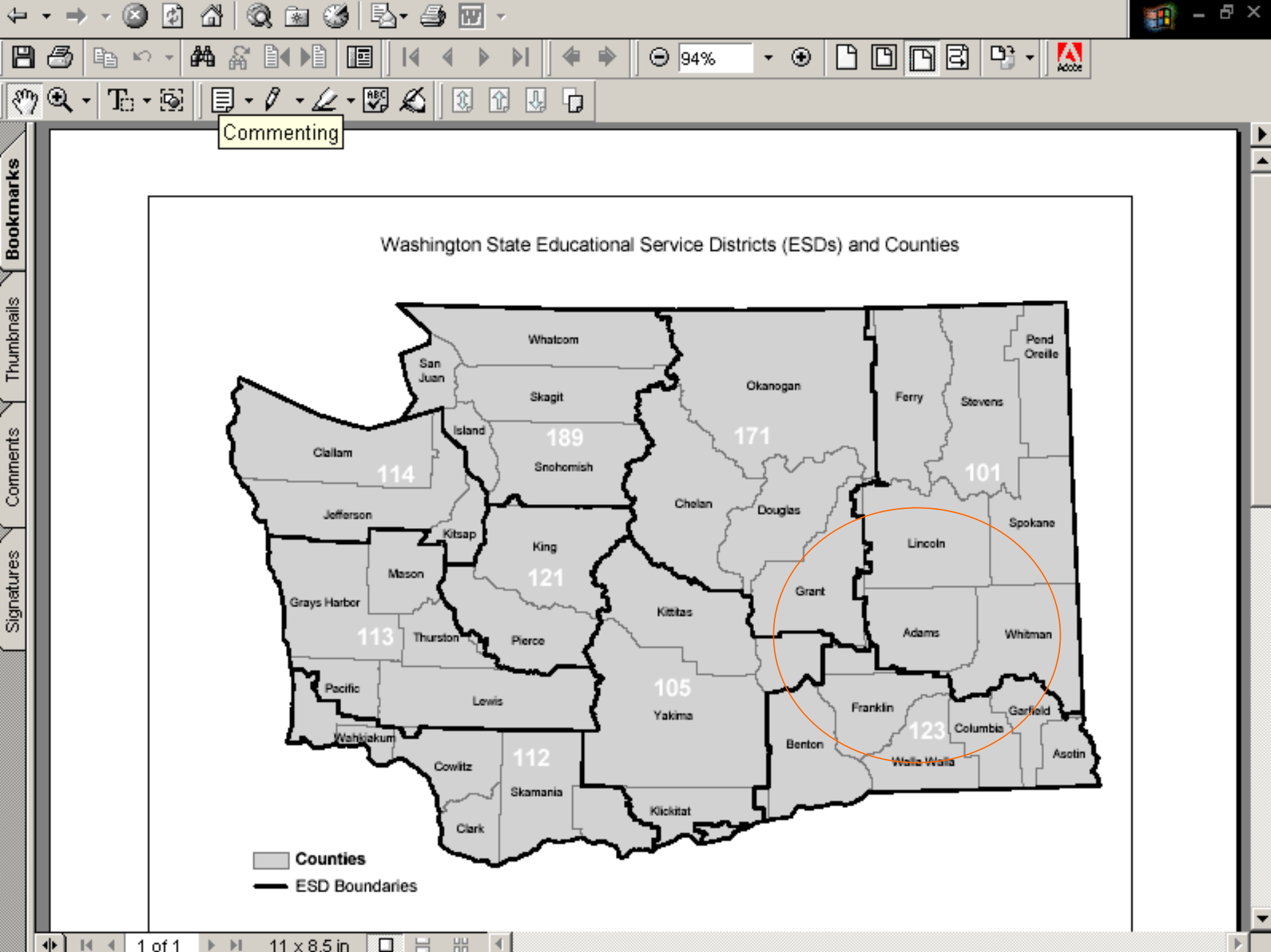
Adults who currently smoke	242,000
Adults who currently use smokeless tobacco	37,000
Youth who currently smoke	33,000
Youth who currently use smokeless tobacco	14,000
ESTIMATED ANNUAL DEATHS DUE TO TOBACCO USE	2,300

Current Tobacco Prevention and Control Program Activities

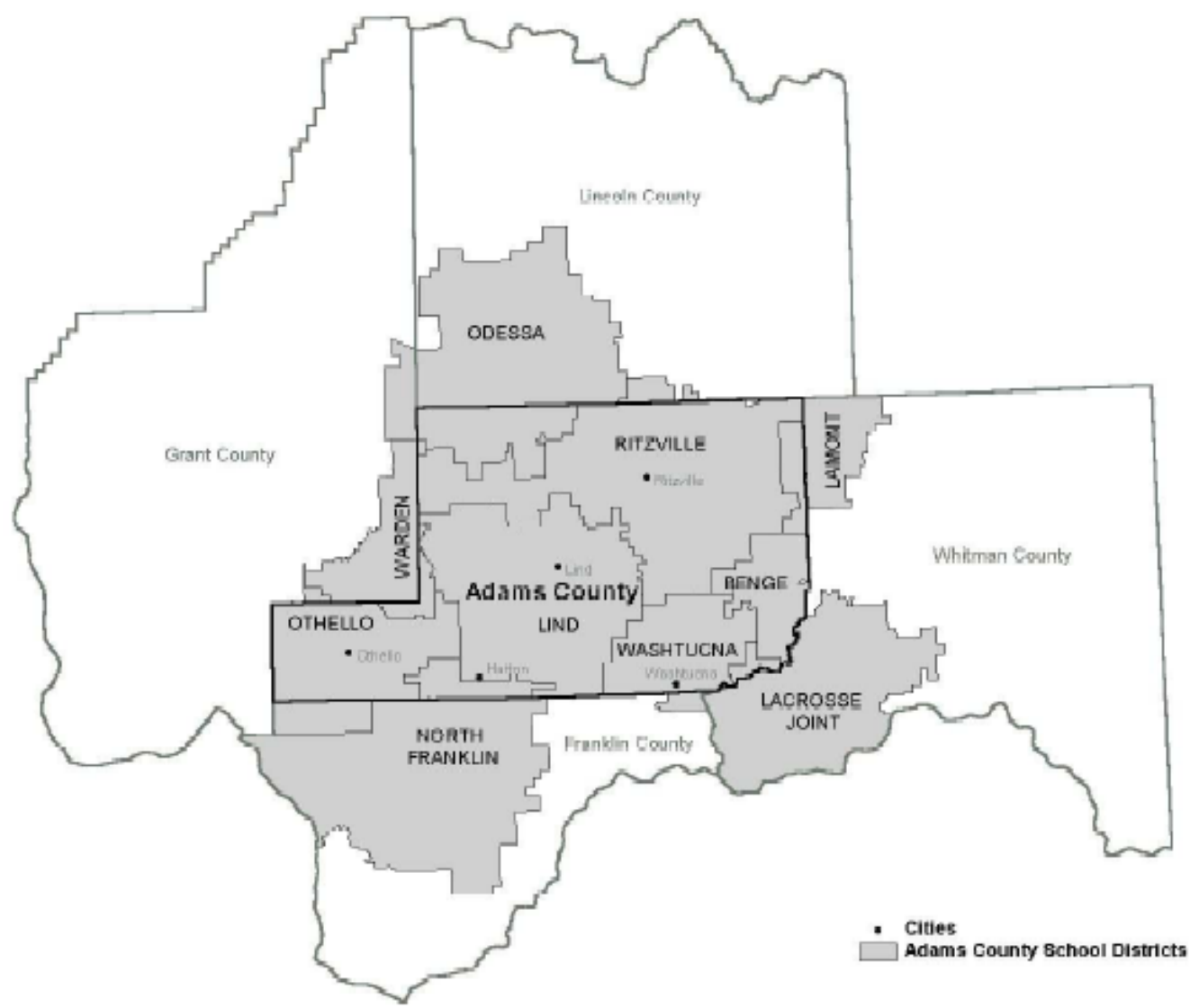
Highlights during 1999

- ✓ Implemented youth access interventions to prevent sale of tobacco to minors, including by retailer education. Over 2,000 retailers impacted.
- ✓ Implemented smokefree restaurant campaign, including restaurant guide. Smokefree restaurants brought to 66% in King County.
- ✓ Extensive campaign to educate retailers regarding implementation of outdoor ad ban. Over 99% compliance with regulation achieved.





Adams County School Districts

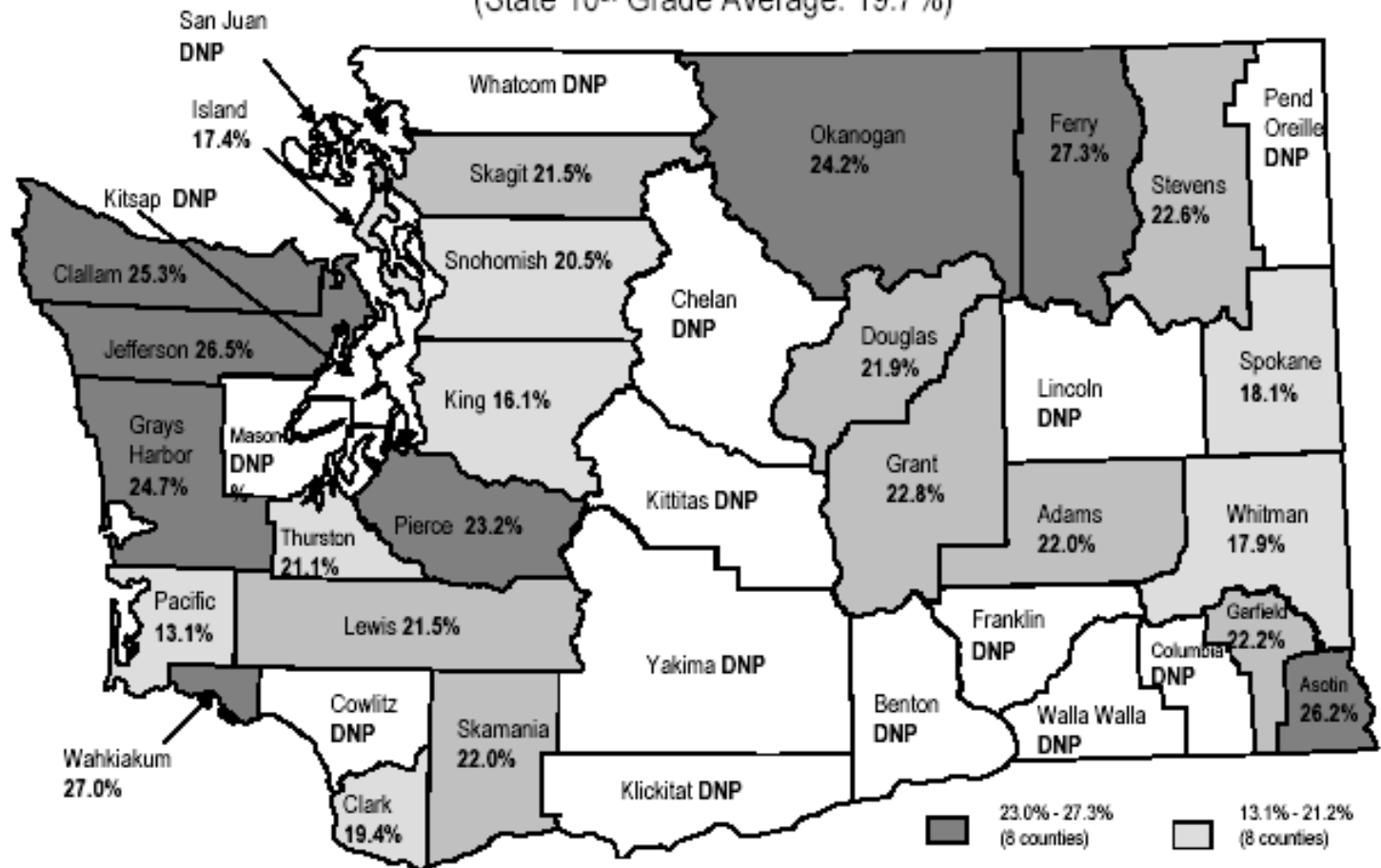




Keep it Simple

- Find formats you like, and stick to them – boring is OK (it is also known as “consistency”)
- Stick to your data standards, and support users to understand them (confidence intervals, small numbers guidelines)
- Make sure figures are “reprintable” on varying quality of printers and copiers
- Think “clean” with your figures – leave room for local folks to put on their own letterheads & layouts

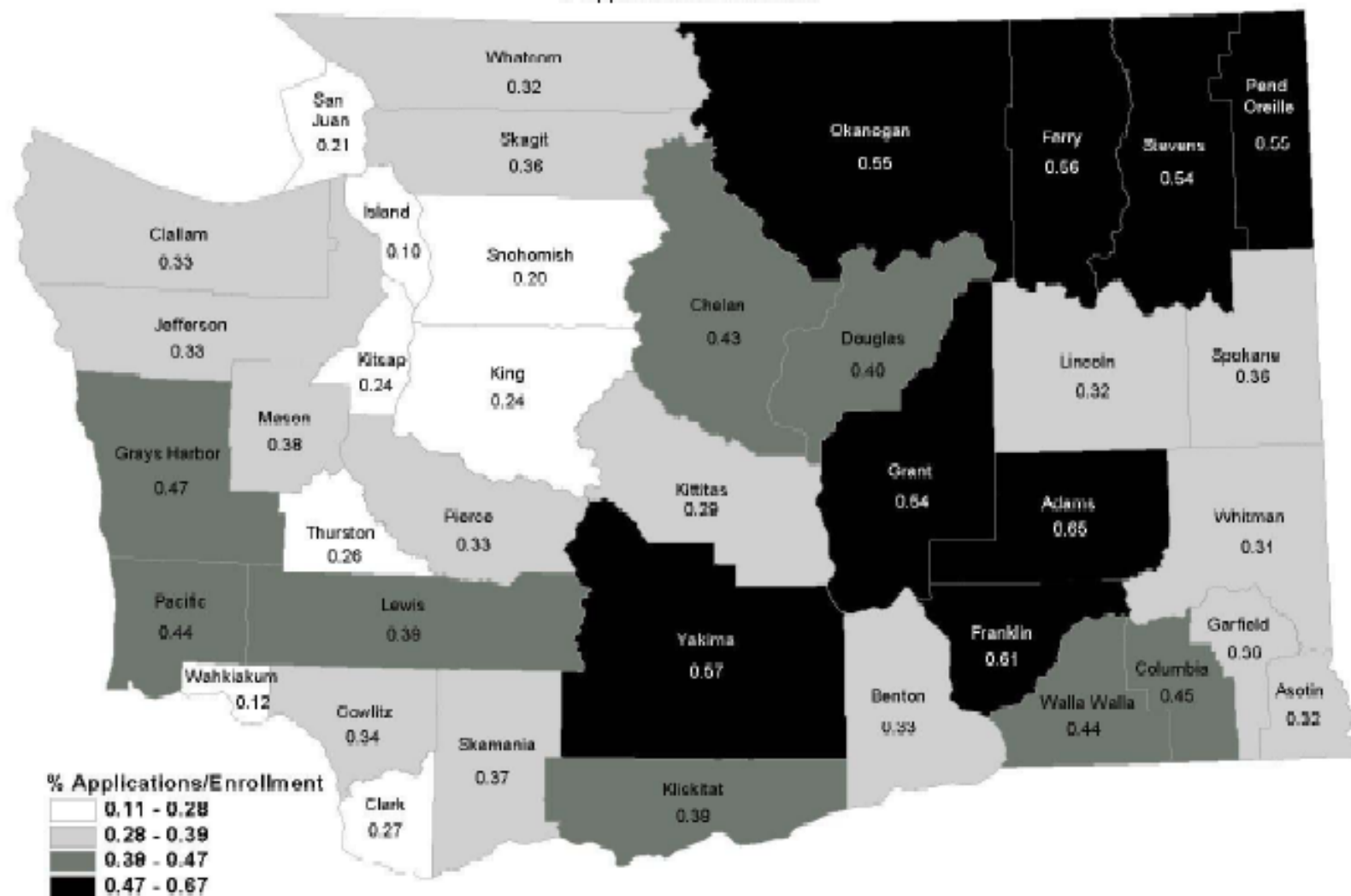
Past 30 Days, Youth Who Have Smoked Cigarettes at Least Once Youth & Tobacco Data Summary, 10th Grade, 2000 (State 10th Grade Average: 19.7%)



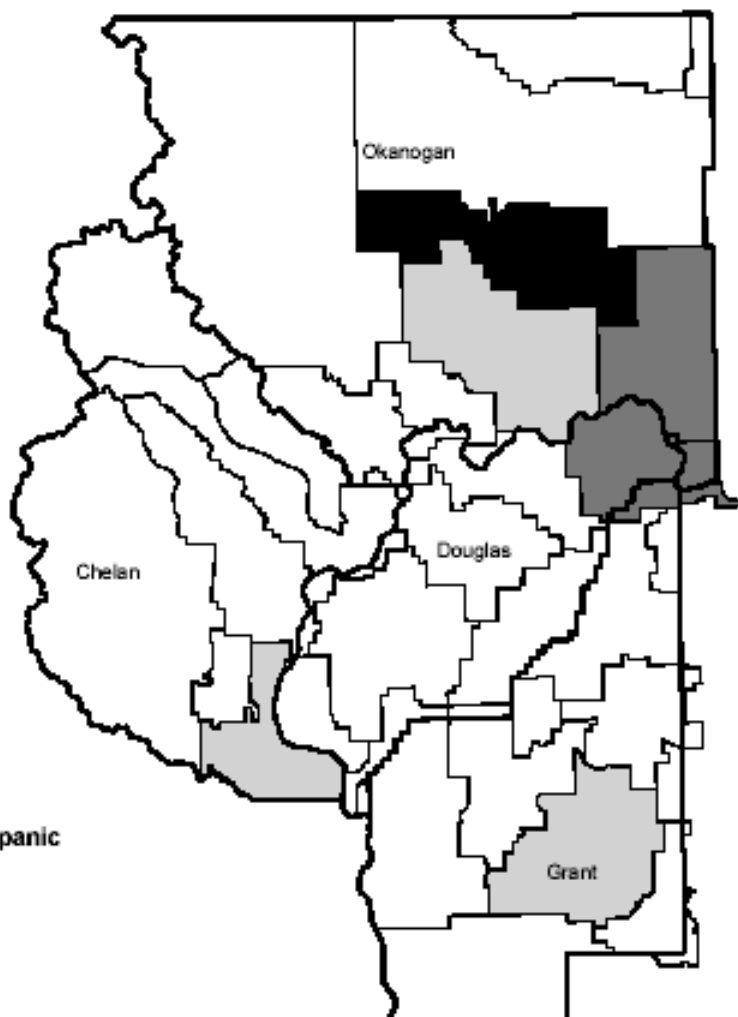
Source: Washington State Department of Health
 Tobacco Prevention and Control
 Assessment and Evaluation

Public Schools Free and Reduced-Price Lunch Applications 2001

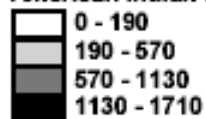
% Applications/Enrollment



ESD 171 by School District American Indian Non-hispanic



American Indian Non-Hispanic



OFM Race/Ethnicity Data 2000
ESD 171 by School District

School District Name	Hispanic Any Race	White Non-Hispanic	Black Non-Hispanic	American Indian Non-Hispanic	Asian Pacific Islander Non-Hispanic	People of Color
BREWSTER	2041	2177	14	123	16	2266
BRIDGEPORT	1548	1180	*	53	9	1658
CASCADE	1158	7977	8	61	37	1415
CASHMERE	1197	5791	10	52	42	1417
COULEE/HARTLINE	38	1386	6	12	6	83
EASTMONT	3584	20263	49	185	155	4322
ENTIAT	352	1661	6	26	11	429
EPHRATA	1130	8780	40	82	70	1516
GRAND COULEE DAM	146	3144	17	747	33	1058
LAKE CHELAN	1585	5069	7	79	42	1816
MANSFIELD	22	458	*	7	*	47
MANSON	1148	1846	*	29	9	1223
METHOW VALLEY	85	4472	*	33	21	197
MOSES LAKE	6788	23530	569	297	399	8794
NESPELEM	48	119	*	1126	*	1198
OKANOGAN	643	4076	12	565	17	1392
OMAK	1139	7097	23	1706	73	3232
ORONDO	619	664	*	9	*	638
OROVILLE	587	3494	12	117	12	821
PALISADES	258	175	*	*	*	265
PATEROS	413	1146	*	19	8	462
QUINCY	4856	4862	7	42	67	5096
SOAP LAKE	329	2788	15	39	6	463
STEHEKIN	*	100	*	*	*	*
TONASKET	814	5207	7	114	34	1079
WARDEN	2060	1708	*	19	29	2137
WATERVILLE	134	1488	7	15	*	188
WENATCHEE	7485	29298	81	306	372	8829
WILSON CREEK	19	568	*	*	*	38

* Small Numbers (<5)



**Not that we have it all done
perfectly, but...**



Achieving Serenity in your Warehouse

- *Empower* users with the information – don't just “grant them access”
 - Provide training to users
 - Provide training to state staff who regularly support users
 - Create ongoing opportunities to discussion
- Be sensitive to evaluation anxiety and access to data



Achieving Serenity (cont.)

- Don't create a local “competition”
 - Inconsistent information at the local level can hurt you and/or your contractors
 - Learn about alternative data sources such as local surveys, and reference or cooperate with them if you can
 - Connect with local assessment staff or other recognized data experts – they can help you (or not)



Achieving Serenity (cont.)

- Help users to talk about the data
 - Give sample language
 - Help distinguish between singular and plural data (datum)
 - Provide examples of how others have used the data
 - Provide a suggested citation/reference for the data
 - For heavens sake, if you get a media call immediately share your interpretation with your local partners – since you can both look at it but might give different interpretations

KING COUNTY Tobacco Use Statistics

ADULTS

Adult Tobacco Use

Information about reductions will be available in early 2003

- Our most recent survey data showed that about 19.5% of adults in King County smoke cigarettes.¹

Quit Line

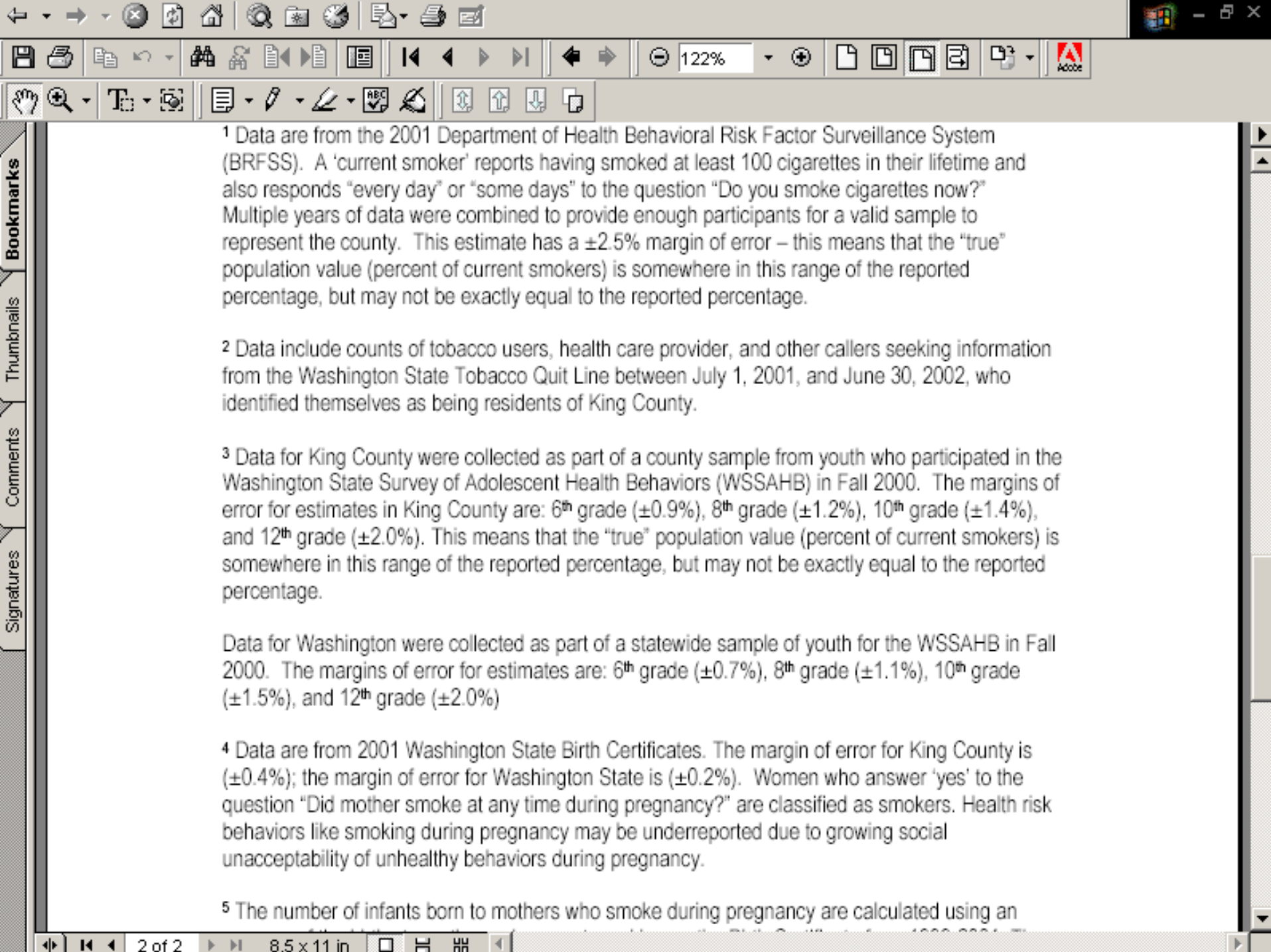
- 2,405 people from King County called the Quit Line last year.²

YOUTH

Current Cigarette Smoking

New data will be available in early 2003

- Our most recent survey data showed:³
 - 6th grade: 3.3% in King County, and 4.0% statewide, reported they currently smoke cigarettes.
 - 8th grade: 9.2% in King County, and 12.5% statewide, reported they currently smoke cigarettes.
 - 10th grade: 16.4% in King County, and 19.8% statewide, reported they currently smoke cigarettes.
 - 12th grade: 26.6% in King County, and 27.6% statewide, reported they currently smoke cigarettes.



¹ Data are from the 2001 Department of Health Behavioral Risk Factor Surveillance System (BRFSS). A 'current smoker' reports having smoked at least 100 cigarettes in their lifetime and also responds "every day" or "some days" to the question "Do you smoke cigarettes now?" Multiple years of data were combined to provide enough participants for a valid sample to represent the county. This estimate has a $\pm 2.5\%$ margin of error – this means that the "true" population value (percent of current smokers) is somewhere in this range of the reported percentage, but may not be exactly equal to the reported percentage.

² Data include counts of tobacco users, health care provider, and other callers seeking information from the Washington State Tobacco Quit Line between July 1, 2001, and June 30, 2002, who identified themselves as being residents of King County.

³ Data for King County were collected as part of a county sample from youth who participated in the Washington State Survey of Adolescent Health Behaviors (WSSAHB) in Fall 2000. The margins of error for estimates in King County are: 6th grade ($\pm 0.9\%$), 8th grade ($\pm 1.2\%$), 10th grade ($\pm 1.4\%$), and 12th grade ($\pm 2.0\%$). This means that the "true" population value (percent of current smokers) is somewhere in this range of the reported percentage, but may not be exactly equal to the reported percentage.

Data for Washington were collected as part of a statewide sample of youth for the WSSAHB in Fall 2000. The margins of error for estimates are: 6th grade ($\pm 0.7\%$), 8th grade ($\pm 1.1\%$), 10th grade ($\pm 1.5\%$), and 12th grade ($\pm 2.0\%$)

⁴ Data are from 2001 Washington State Birth Certificates. The margin of error for King County is ($\pm 0.4\%$); the margin of error for Washington State is ($\pm 0.2\%$). Women who answer 'yes' to the question "Did mother smoke at any time during pregnancy?" are classified as smokers. Health risk behaviors like smoking during pregnancy may be underreported due to growing social unacceptability of unhealthy behaviors during pregnancy.

⁵ The number of infants born to mothers who smoke during pregnancy are calculated using an



Achieving Serenity (cont.)

- Ask users for feedback
 - Test if they know where things are
 - Ask if titles/links are clearly labeled
 - Get a web-report of user activity
 - Find out if they USE the information (just because they asked for it or LIKE it doesn't make it useful)



Achieving Serenity (cont.)

- Plan ahead & prepare for inevitable:
 - You will make a mistake
 - People won't always agree with you
 - People won't always use data the way you want them to
 - People always desperately want the thing that you haven't put up yet
 - Have a process for doing a “special run”
 - Not everyone likes the web – some people still want you to print it out



Thank you!
For more information:

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